

Subject: INFO-HAMS Digest V89 #921
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

INFO-HAMS Digest Wed, 22 Nov 89 Volume 89 : Issue 921

Today's Topics:

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Date: Wed, 22 Nov 89 13:44:24 EST
From: Michael_Edelman%Wayne-MTS@um.cc.umich.edu
Subject: (Lack of) Service

I have a lot of sympathy with Phil H's comments in Digest 918, but I think they're only the tip of the iceberg. Actual service is worse. Rigs go in for 6 weeks and show up with the same problem. Service manuals are unavailable, dealers are no help, etc. and etc.

That's one reason I decided to go back to Ten Tec. If you've never dealt with them, be prepared for a shock. They always answer the phone, they mail out service manuals (or copies of out-of-production manuals) with a bill (no prepayment needed), they answer service questions on the phone, they will mail you modules to plug-and-switch on approval, they credit returned modules against new ones, and in general they act like you're doing *them* a favor for doing business with them instead of the other way around.

I have absolutely no connection with this company or its dealers; I just had to say how refreshing it is dealing with them again.

--ke8yy

Date: 22 Nov 89 21:55:17 GMT
From: tank!eecaec!cps3xx!usenet@handies.ucar.edu (Usenet file owner)
Subject: Every one uses them -how do they work?Matching networks-

In article <3330002@hppad.HP.COM> derek@hppad.HP.COM (Derek Schuurman) writes:
>how exactly does a pi network or a T network transform a mismatched load
>into an apparently matched one?

Your best bet is to get a book on linear circuit analysis, or talk to some electrical engineers over there at HP. Basically, energy storage devices are used, because they store energy but do not dissipate energy (for ideal devices). The impedance of a Capacitor is $-j/\omega C$. The impedance of an inductor is $j\omega L$. The impedance of a resistor is R . Use Ohm's law, and Kirchoff's voltage and current laws. If the matching circuit is small (in terms of wavelengths) these techniques may be used, because radiation from the matching network can be neglected. If the impedance of the antenna is known, it may be matched to any other impedance. This may or may not be practical in your circumstance. These are all standard techniques, and every amateur radio operator should know them.

In the rare case that original ideas are found here, I am responsible.
Internet: hendrick@frith.egr.msu.edu

Kenneth J. Hendrickson N8DGN
Owen W328, E. Lansing, MI 48825
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Date: Wed, 22 Nov 89 16:44:55 MST
From: Josh Rovero <PROVERO@WSMR-SIMTEL20.ARMY.MIL>
Subject: Icom 720 Mods

I have been totally unsuccessful in obtaining ALLBAND MODS from the mods server up in Canada. Is there anyone that has access to the server that could e-mail me the file? It would be greatly appreciated.

Another non-frequency coverage mod that I would be interested in hearing about concerns mods to the AM detector. Again, thanks in advance....

Josh Rovero Internet: POvero@wsmr-simtel20.army.mil

 Packet Radio: KK1D@WD4MIZ

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Date: 22 Nov 89 06:28:44 GMT
From: cs.utexas.edu!asuvax!anasaz!john@tut.cis.ohio-state.edu (John Moore)
Subject: Military aircraft callsigns...Eugene Balinski

In article <1989Nov22.031024.6074@Neon.Stanford.EDU> kaufman@Neon.Stanford.EDU (Marc T. Kaufman) writes:
]The comment stands, however. If you HAD listened to the transmissions, you

]would realize that they were NOT encrypted. As a member of the military, you
]should also be aware that anything they want secure, will be secure. If they
]transmit in the clear, they don't care who listens. Why should you?

This former member of the military would disagree with you. I once
heard a FLASH priority message which indicated a hostile ballistic
missile launch - in the clear! Turns out it was a drill, but you
couldn't tell from the message.

After the USS Pueblo was captured (1968?), we (Navy ASW Air) operated
in the clear for several months because our code books had been
compromised.

We used to practice highly classified anti-submarine tactics, communicating
with the trainers on UHF unencrypted voice. Anyone listening (including
the Soviet trawlers that were frequently within 20 miles) could decipher
the transmissions (they were, after all, in the clear) and deduce
the exact tactics we were using.

I must add, however, that I also think Jim got out of hand in harrassing
Bob Parnass for publishing store detective frequencies. If you don't want
it to be intercepted, ENCRYPT IT!

By the way, it is the policy of the local (Phoenix) police to transmit
all but the most sensitive communications in the clear. They want the
press and the public to hear what they are doing, and recognize the
public's legitimate interest in monitoring those frequencies to
see if the agencies are acting properly!

--

John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 861-7607 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
The 2nd amendment is about military weapons, NOT JUST hunting weapons!

Date: 22 Nov 89 20:01:43 GMT
From: gem.mps.ohio-state.edu!samsung!cs.utexas.edu!asuvax!mcdphx!hrc!valley!
pfluegerm@tut.cis.ohio-state.edu (Mike Pflueger)
Subject: military call signs.....etc.

Edited to fit in 80 columns, not 200 or so:
In article <8911212358.AA17672@ti.com>, dube@cpdvax.csc.ti.com (DUBE TODD) writes:
> and I'd like to toss in my 2-cents' worth. If any "in-the-clear" radio trans
> missions are subject to intercept and disposition as the interceptor sees
> fit, then we should get concerned about our use of cordless phones. Anyone
> can park in front of your home and receive/record all your personal

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> conversation that you
> care to "dump" into the public domain and do whatever he/she pleases with it;
> possibly resulting in some embarrassment to you and your family.  As
> someone mentioned, it's like overhearing a conversation in any public
> gathering.
> We can't have it both ways.  Think about it.
>
>                                     Regards,
>                                     Dube Todd
>
> "Rights without responsibility is a dangerous dissociation"
> ~~~~~
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But these rights are what the country is based on. Unfortunately, and obviously, we cannot legislate away ignorance or irresponsibility. This is one of the risks/costs of a FREE SOCIETY. Therefore, I'm willing to accept it. The only alternative is a closed society.

ECPA opens the door for OTHER SIGs (Special Interest Groups) to request additional restrictions. Tomorrow it could be illegal to receive ANYTHING except TV or commercial AM/FM radio. We could require that all receivers be licensed and incapable of receiving anything other than what is authorized. Maybe we need door-to-door spot checks to make sure everyone is complying. Begins to sound a lot like communism, doesn't it.

What is NOT legal in either case is DISSEMINATION (rebroadcast, gossip, etc.) or USE FOR GAIN of that information (i.e. a "dump into the public domain"). I don't think anyone on the net is proposing that.

Yes, this outrages me. But this is at the very root of all the freedoms we enjoy, and I think everyone should be outraged at thoughts like this.

I'm attacking the thought, not the person.

> We can't have it both ways. Think about it.
Amen.

--

Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att!g!tephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850 Home: 602-439-1978
Packet: WD8KPZ @ W1FJI

Date: 22 Nov 89 22:17:12 GMT
From: tank!eeca!cps3xx!usenet@handies.ucar.edu (Usenet file owner)
Subject: RS-232 in Turbo Pascal

In article <8911220808.AA09412@ucbvax.Berkeley.EDU> MROWEN@STLAWU.BITNET (Mike Owen W9IP) writes:

>Anyone out there have any experience controlling the
>IBM serial port (COM1 or COM2) using Turbo Pascal?

No, I haven't done either. I've never programmed an ACIA/PIA/serial port on an IBM PC; I have written code to control an 8250 in other special purpose computers. I have also written code to control Motorola chips. I don't use Turbo Pascal; I don't use any kind of Pascal - it's input/output capabilities are non-existent. I use C and assembly. However, I think I may be able to point you in the correct direction.

>I need to turn on/off the DTR and RTS lines (in order to
>send CW). This is easy in BASIC, but I can't figure out
>how to do it in Pascal. I imagine it will require an
>Assembly Language routine, but the addresses are unknown to
>me.

Interrupt 21h, function 44h seems to be the one you want. It is well documented in books like Peter Norton's Guide to the IBM PC. I would recommend this book (or the new version also including PS/2) if you are doing this kind of programming. I don't think this is the place to go into detail about techniques, however.

In the rare case that original ideas are found here, I am responsible.
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Date: 22 Nov 89 23:47:43 GMT
From: unsvax!arrakis.nevada.edu!storkus@uunet.uu.net (Mike Storke)
Subject: The "right to receive"

I'm afraid I have to disagree with you. Just because the constitution doesn't allow the president to fight undeclared wars doesn't mean he doesn't fight them anyway. And just because the constitution doesn't give the Congress the right to make committees and give the power of judicial review to the court doesn't mean they do that too.

And just the same way, just because the constitution or law doesn't say that you can receive and decode transmissions that enter YOUR house doesn't mean that you can't do it with YOUR OWN EQUIPMENT IN YOUR OWN HOME ANYWAY YOU CAN!

The point is that if the police or whoever wanted to keep people from listening in on their conversations, they should use spread spectrum or cryptography. And even there, there's always the chance that someone will be able to decode it. So unless they switch to a system that EXPLICITLY does not allow you to get the the signal in the first place (like cable tv or spread spectrum for example), I believe I have the right to intercept ANYTHING that enters my own home, and the only way they're going to keep me from intercepting it is to keep it from entering it in the first place. 73's,

Mike P. Storke, N7MSD @ University Nevada/Las Vegas-only a student, sorry :-)
Inet: storkus@arrakis.nevada.edu Packet: KF7TI @ LAS:K7WS-1 or ANGEL:K7WS-2
Snailmail: Box 462 Las Vegas, NV 89119 Sorry, what I say comes from my fingers.
"Pascal: The Handcuff of the Programmer"-ME! I WANT MY C!!!!!!!!!!!!!!!!!!!!!!

Date: 22 Nov 89 21:55:19 GMT
From: shelby!neon!bodega.stanford.edu!paulf@decwrl.dec.com (Paul Flaherty)
Subject: The End of Amateur Radio {Part 2/3}

Prior to 1986, attempts at making radio reception illegal were largely unsuccessful. As a result, privacy could not be guaranteed -- or even claimed -- without extensive encryption of transmissions. The advent of cellular telephony created a debacle, with users assuming privacy, due to the public nature of the service, and its similarity to landline telephones. The industry, having received complaints about lack of privacy from users, examined two options. The first, encryption, was thought to be infeasible and expensive, despite existing technology which could have been borrowed from the defense industry. The second option was far less profit - reducing; the industry lobbied congress for the passage of legislation outlawing the reception of cellular telephones. The resultant Electronic Communication Privacy Act (ECPA) of 1986 was a landmark. Although it offered no hope of enforcement, it allowed the industry to create the expectation of privacy. Moreover, it set the precedent of industry solving

a technical problem through legislation, which was later to bear a bitter fruit.

As the presidential election of 1992 approached, politicians began to realize the absolute importance of television campaigning, and of maintaining the quality of the medium, so that their imagemakers would have an unfettered channel to the voters. The broadcast industry, readily aware of this newfound appreciation, decided to lobby against an old foe: Television Interference from external RF sources, including ham radio transmitters. The technical advisors were well aware of the real problem; poorly designed receivers, cheaply built, without any RF shielding. Efforts to force the manufacturing industry to build TVI - resistant receivers were largely unsuccessful, as overseas manufacturers created market pressures forcing the bottom line. It was simply too expensive to modify existing designs, and the addition of shielding would cut the profit margin. With this in mind, the industry again lobbied a willing congress, and the result was the Kennedy Act of 1991. The Act recognized television reception as a fundamental political right, and anything interfering with that right had only secondary consideration.

Amateur Radio organizations lobbied heavily against the Act, weighing the emergency preparedness aspect of the hobby. Thus, the act simultaneously created the Emergency Radio Service, which was allocated a small amount of bandwidth, for emergency use only. The spectrum was carved out of the Amateur allocation, and reallocated primarily to the Voice of America and other shortwave broadcasters.

The Act had a devastating effect on the hobby. Amateur stations in crowded metropolitan areas were quickly shut down by the FCC, and licensees simply lost interest, and let their tickets expire. Persons who were previously drawn to the public service aspect of ham radio were instead drawn to the Emergency Radio Service, which required no examination and no code. The population of licensees plummeted from 500,000 to less than 50,000; only about 5,000 of those were really active by 2001. As a result, the US delegation to the World Administrative Radio Conference in 2001 joined the ranks of those seeking to eliminate the Amateur service, and the entire allocation was deleted and reallocated to the Emergency Radio Service, and broadcasting.

With the silencing of the RF spectrum by the Kennedy Act, manufacturers simply eliminated whatever shielding existed in their current designs. At this point, several renegade hams attempted to break radio silence. Unfortunately, the resulting RFI was even more severe, and mishap was inevitable. The downing of Air Force Two, with Vice President Gore aboard, created an incident of public horror. When the investigation revealed that navigational error resulted in the plummet into the Potomac, and that two former ham radio operators were responsible for the malfunction, a public cry went out. The Vice President's wife, already known for her

ability to whip up public support for constitutionl amendments, was in anguish. As she took her husband's post, she also introduced documents that eventually became the 42nd Amendment, which prohibits the use of radio for personal entertainment. The few remaining ham radio "rigs", already aging, were confiscated according to the provisions of the Amendment, and Amateur Radio was silenced forever.

{to be continued.}

-=Paul Flaherty, N9FZX | "I asked for a dissertation topic, and for my
->paulf@shasta.Stanford.EDU | sins, they gave me one."

Date: Wed, 22 Nov 89 13:36:32 EST
From: Michael_Edelman%Wayne-MTS@um.cc.umich.edu
Subject: The Morality of Monitoring

I think the best statement on this was from a Sercret Service higher-up, when asked why they use code names for the persons they protect when everyone knows wha they mean. It's not for secrecy, he explained, but for simple convenience. We have a simple rule: Don't say anything on your radio that you wouldn't want to hear broadcast over the PA system.

And that's the size of it. The ECPA sets a terrible precedent. Funny, isn't it? As the USSR shuts down its jammers and the wall comes down, we have more laws restricting our freedom. Stupid ones at that. Scanner laws are like many of the gun laws: They don't stop the regular criminals, they just make new criminals out of technical violators. What societal purpose is served by imprisoning someone for listeing to 800MHz? As long as you don't disclose what you've heard, fine with me. If you want security, go microwave point-to-point, or encode, or...

This has been an unpaid, and hopefully not excessively flaming, editorial comment from ke8yy

(...and about all those flames: There is a nice way to criticize and argue, and there is an immature way. I don't care how wrong, misguided or mistaken someone is. When I was a small child I was taught to say "I think you may be mistaken...." or "I would disagree..."; *not* "Keep your ignorance to yourself" or whatever. We all have an equal right to be wrong. Sometimes this group makes the top 10KHz of 75 look like a tea party. And anyways, my mom says if you don't all play nice I can't come over any more.)

End of INFO-HAMS Digest V89 Issue #921
